

CANNOCK URBAN DISTRICT
COUNCIL



ANNUAL REPORT
of the MEDICAL OFFICER
OF HEALTH

W. M. CLENDINNEN

M.B., Ch.B., M.R.C.S., L.R.C.P.

Diplomate of Public Health, University of Cambridge

FOR THE YEAR 1919



HEDNESFORD:

Printed by Order of the Urban District Council of Cannock
by Evans's the Printers.



1920.

COMMITTEES.

Building and Sanitary Committee :

Mr. Councillor Bagnall	Mr. Councillor Croft
„ „ Benion	„ „ Mason, J P.

Chairman—Mr. Councillor T. Whitehouse.

Maternity and Child Welfare Committee :

Mr. Councillor Benion	Mr. Councillor Lewis
„ „ Boot	Mrs. Price
„ „ Corbett	Mr. Councillor Watwood
„ „ Croft	Mrs Webster
„ „ Fairley	Mr. Webster
Mrs. Ingram	Mr. Councillor Whitehouse

Chairman—Mr. Councillor Lewis.

Health Visitors :

Miss K. M. Webster, C.M.B., Health Visitor Certif.
Miss E. Wright, C.M.B.
„ E. H. Jones, C.M.B.
„ Brandon, C.M.B.

Midwife :

Mrs. Thomas, C.M.B.

Sanitary and Housing Inspector :


Mr. John Turton, C.S.I., Meat Certificate

Assistants :

Mr. John Davies, C.S.I. Mr Percy Nash.

Housing Architect

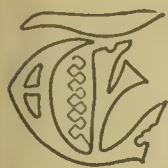
Mr. Harrison



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FOREWORD.



THE Recruiting Boards examined two and a half million men. Of these little more than one-third were classed Grade I. If the primary asset of a nation is the health of its people Public Health or Preventive Medicine is of first-rate importance. ¶ The greatest achievement of the Army Medical Service in the war was its prevention of disease, not the cure. ¶ The measures necessary to this end must be applied in civil life. ¶ Huge sums of money are spent on disease, bodily and mental: Hospitals, Sanatoria, Lunatic Asylums.

¶ The country is said to have reason to be proud of its Hospitals. In reality, to a great extent, they are causes for shame, because so much of this work should be unnecessary. The technical details of a Health Report, dry and uninspiring as they are to the uninitiated, show where successes have been gained and stimulate to further progress, indicate failures and the need for better knowledge, point to action required to be undertaken, and are the basis on which popular propaganda can be built.

¶ By wise outlay on Public Health much of the expenditure on endeavours to mitigate the effects of established disease, such as Sanatoria, Asylums, Sickness Benefit, Poor Relief, could be saved, to say nothing of the economic gain by increased production of healthier and stronger workers. But chiefly and above all "The sound mind in the sound body" means happiness, means something towards "The fair sporting chance."

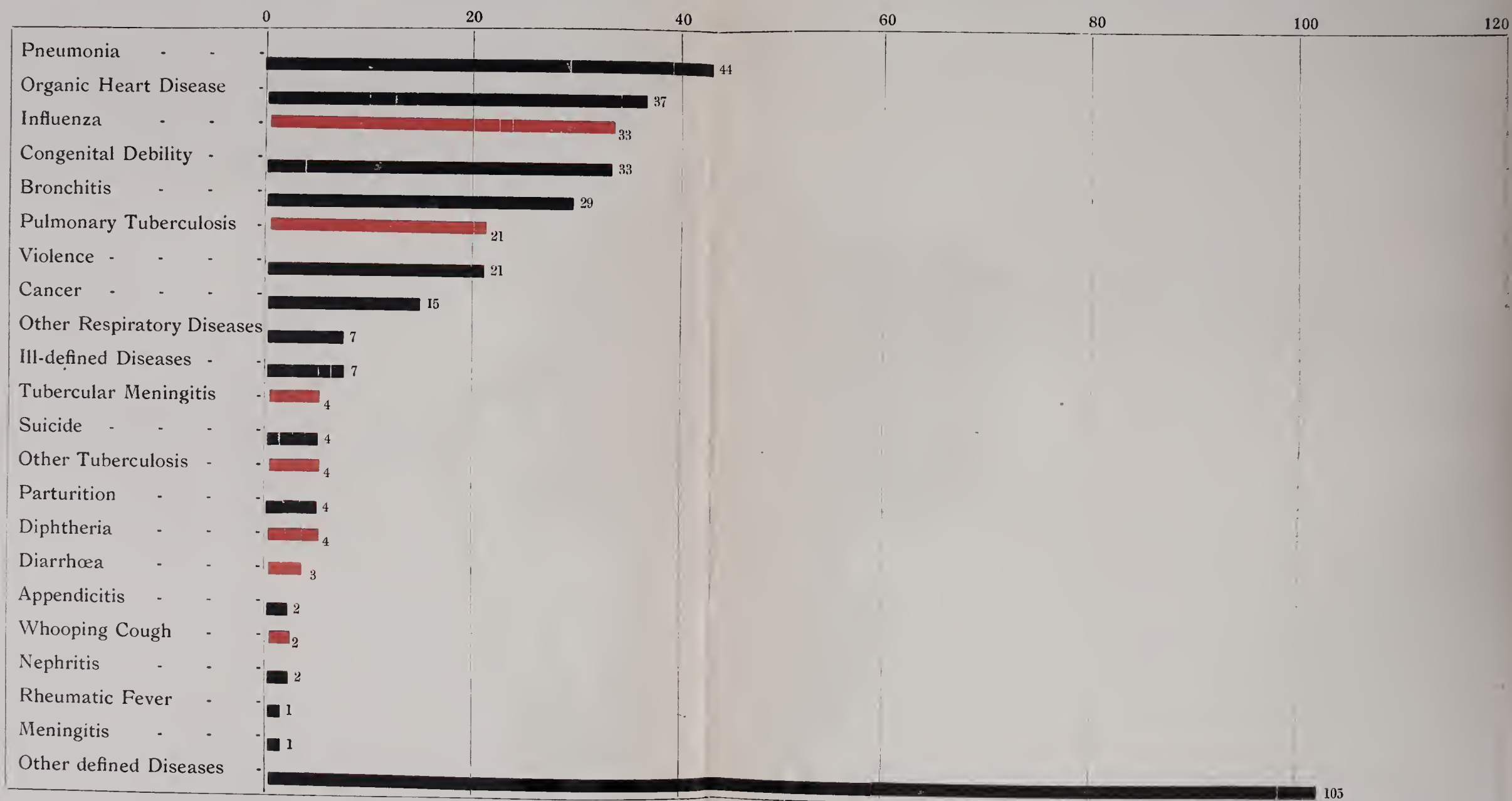
¶ The Council have therefore done wisely in marching with the times and employing Health Visitors, establishing Child Welfare Centres, and pushing the erection of new houses. They must still go forward, and it will be necessary to stir up public interest by Health propaganda. Unless the individual becomes interested and co-operates, progress will be little. To get the workers interested it is necessary to broaden their minds, to get wider views among them. Social effort is required to raise them to a fuller life. The miners have now shorter hours of work. Persons capable of doing it should show them how to use their play hours. But the mothers need time for *re-creation* far more than the men. The working-class mother is never done. By labour-saving devices in the homes, by baths at the pit head, perhaps, by communal arrangements for cooking, etc., by nursery schools, her toil must be lessened. Social workers may then expand her interests, so that she will see many things now obscured by immersion in the daily grind. When knowledge has stirred the imagination, raised the views and widened the interests of the people, progress in Public Health will be quickened, but it is a problem requiring personal, domestic, and social effort, as well as that of Sanitary Authorities.



CHART SHOWING PRINCIPAL CAUSES OF DEATH 1919.

DEATHS FROM INFECTIOUS DISEASES.

DEATHS FROM OTHER CAUSES.



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GENTLEMEN,

I beg to present my seventh Annual Report, the arrangement and form of which are in accordance with the Memorandum of the Ministry of Health dated January, 1920.

Natural and Social Conditions
of the District.

Population, Census 1911, 28,586. Total families or separate occupiers, 5,744. Estimated population 1919, for Birth Rate 34,804, for death rate 33,411.

These are according to the estimate of the Registrar General and are based mainly upon the Rationing Returns of the Ministry of Food.

PHYSICAL CHARACTERISTICS.

The Cannock Urban District (area 8,010 acres) is about the centre of the great hunting forest of Cannock Chase, which extended nearly from Stafford to Wolverhampton. It forms part of the Cannock Chase coalfield, and owes its present importance entirely to the coal industry. For centuries past coal and ironstone easily accessible from the surface have been worked at and near Cannock, but it is only since about 1865 that deep shafts have been sunk to the lower and more valuable seams and large modern colliery undertakings have been established giving employment to thousands of men and lads at each colliery.

GEOLOGY.

The district has two special features, one portion is conspicuous by its elevated and rounded hills of gravel and conglomerates, on which nothing but heather and bracken will grow. These gravels and conglomerates belong to the Bunter beds of the Triassic system. The other portion forming the lowlands and valleys rest on the clays and shales of the coal measures; in some places, however, the coal measures are covered with drift sand and gravel, a recent formation varying from two to 12 feet in thickness.

ELEVATION.

The north-east and north-west portions of the district form part of the highlands of the Chase lying at an elevation of 600 to 800 feet, the greatest altitude being occupied by the old British earthworks of Castle Ring, 801 feet above sea level. To the south of the district the land falls to about 375 feet above sea level.

DRAINAGE.

The natural drainage forms part of the watershed of the Trent. On the west side of the district the highest point of the watershed is on the site of the old Hednesford Pool, about 515 feet above sea level. From this point a small stream flows northward to Bentley Brook, and on to Rugeley. Another small stream flows southward through Hednesford and forms the Ridings Brook, and passes Cannock Mill and under the Watling Street, and joins the Wyrley Brook at about 375 feet above sea level. On the east side of Bridgtown Ward the Newlands Brook forms the boundary line and flows south until it joins the Wyrley Brook near Church Bridge. On the north-east side of the district the Redmoor Brook rises in the New Hayes at an elevation of about 600 feet above sea level and flows south-east through Court Banks, and receives the numerous springs which come to the surface in Cannock Wood.

OCCUPATIONS.

The Census returns showed that of a total of 11,605 males, aged 10 years and upwards, 9,976 were engaged in occupations.

The chief of these are :—

- 6112 Workers in Mines.
- 476 Food, Tobacco, Drink, Lodgings.
- 380 Iron, etc., (353 Toolmakers)
- 285 General Engineering.
- 374 Building and Works of Construction.
- 202 Agriculture.
- 166 Brickmakers.

Of married women only 35 per thousand are engaged in occupations. The proportion per 1,000 of domestic indoor servants to total number of separate occupiers or families is 92.

The 1911 census showed that 9.5 per cent. of the population lived

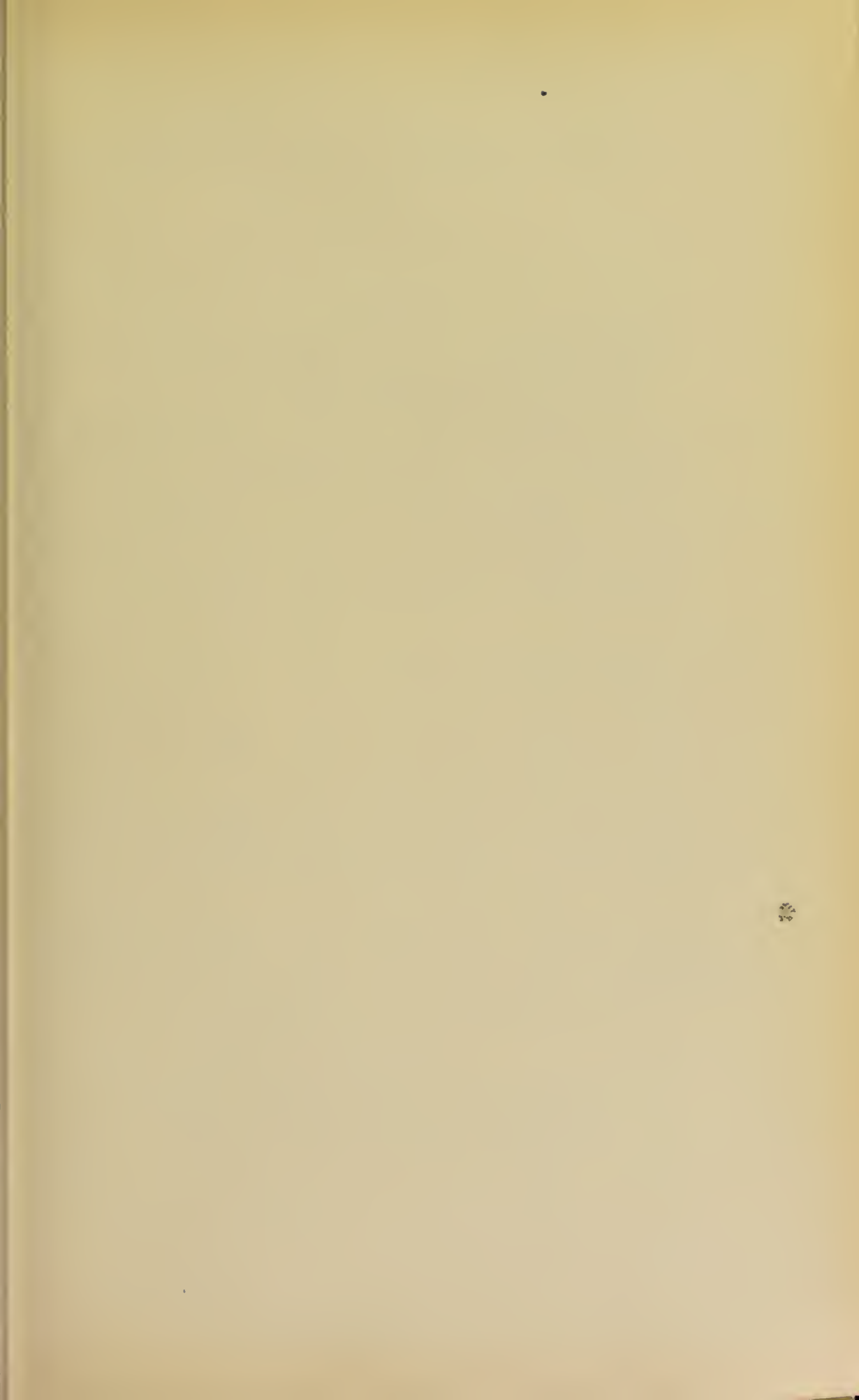


Table VI.

**Vital Statistics of Whole District during 1919,
and previous Years.**

Year	Population estimated to middle of each Year		Births			Total Deaths Registered in the District		Transferable Deaths		Nett Deaths belonging to the District			
			Un-corrected Number	Nett						Under One Year of Age.		At all Ages.	
	For Death Rate.	For Birth Rate.		Num- ber.	Rate	Num- ber.	Rate	Out- ward.	In- ward.	Num- ber.	Rate per 1,000 Nett Births	Num- ber.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1914	30500	30500	1000	996	32.6	427	14.0	22	33	129	129	438	14.3
1915	30337	30337	924	920	30.3	403	13.28	20	34	91	99	417	13.7
1916	29755	32374	896	896	27.6	395	13.2	20	28	82	91.5	403	13.5
1917	28785	32087		864	26.9	364	12.6	26	20	85	98	358	12.4
1918	28806	32276		860	26.6	602	20.9	27	40	107	124	615	21.3
1919	33411	34804		794	22.7	387	11.5	35	39	67	84	383	11.4

Area of District in acres (exclusive of
area covered by water) 8010

Total Population at all ages—28,586
Total families or separate occupiers, 5744

At Census
of 1911.

in overcrowded conditions, i.e., more than two persons per room.

Examination in the schools for uncleanness showed that 59 per cent. of girls in the "Leavers" Group had verminous heads.

VITAL STATISTICS.

The birth rate which stood at 32.6 per thousand of total population in 1914 has dropped to 22.7 for 1919, the rate of decrease in the past year being at double the rate of the previous four years. It is to be noted, however, that a great improvement has occurred during the last six months of the year, 484 births having been registered during that period. If the number of births had been the same as this in the first half of the year the total births would have been equal to a rate of over 27 per thousand. There is no excess of male children.

The death rate is very satisfactory, being 2.4 per thousand below that of England and Wales, which represents a saving of 80 lives.

This is mainly attributable to the absence of fatal outbreaks of Measles, Whooping Cough, Diarrhœa, and other common infectious diseases, so that the death rate of one per thousand caused by Influenza in the early months is more than counter balanced by saving in other directions.

The Infant Mortality rate is also at its lowest ; whether reckoned on the 69 deaths of which I have record, or on the number assigned by the Registrar General which is 67.

CAUSES OF DEATH.	1919.	
	Males.	Females.
All Causes	191	192
Whooping Cough	—	2
Diphtheria and Croup	3	1
Influenza	15	18
Erysipelas	—	—
Pulmonary Tuberculosis	10	11
Tuberculous Meningitis	2	2
Other Tuberculous Diseases	3	1
Cancer, Malignant Disease	9	6
Rheumatic Fever	—	1
Meningitis	1	—
Organic Heart Disease	13	24
Bronchitis	22	7
Pneumonia (all forms)	24	20
Other Respiratory Diseases	2	5
Diarrhœa, etc., (under 2 years)	2	1
Appendicitis and Typhlitis	—	2
Nephritis and Bright's Disease	1	1
Parturition, apart from Puerperal Fever	—	4
Congenital Debility, etc.	15	18
Violence, apart from Suicide	16	5
Suicide	4	—
Other defined Diseases	48	57
Causes ill-defined or Unknown	1	6

Death rate per 1,000 from Zymotic Diseases, 1919	...	0.26
Average for previous five years	...	1.54
Death rate per 1,000 from Pulmonary Tuberculosis	...	0.62
Average for previous five years	...	0.67
Death rate per 1,000 from other forms of Tuberculosis	...	0.23
Average for previous five years	...	0.32
Influenza Death Rate, 1919	...	1.0
„ „ „ 1918	...	4.2
„ „ „ 1913—17	...	0.25
Pneumonia „ „ 1919	...	1.3
„ „ „ 1918	...	4.1
„ „ „ 1913—17	...	1.26

ZYMOTIC DISEASE.

This Table shows the Deaths and death rate from these diseases during the past five years :—

Disease.	1915	1916	1917	1918	1919
Smallpox	0	0	0	0	0
Measles	6	5	13	35	0
Scarlet Fever	2	0	0	0	0
Diphtheria	3.	6	6	14	4
Whooping Cough	5	3	1	8	2
Enteric Fever	0	0	1	0	0
Diarrhœa	13	7	12	10	3
Totals	29	21	33	67	9
Rate per 1,000	0.95	0.7	1.1	2.3	0.26

ACCIDENTS.

The Deaths from Violence (chiefly coal mine accidents) in the last four years are as follows :—

Year.	Deaths.	Males	Females.	Rate per 1,000.
1916	19	16	3	0.63
1917	9	8	1	0.31
1918	20	14	6	0.69
1919	21	16	5	0.62
England and Wales for 1919 ...	...	...	...	0.47

For comparison, the following provisional figures given by the Registrar General for England and Wales for 1919 are appended :—

Table VIII.

	Birth Rate per 1000 Total Population.	Annual Death Rate per 1,000 Civilian Population.							Rate per 1,000 Births.		
		All causes.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria	Violence.	Diarrhœa and Enteritis (under 2 yrs).	Total Deaths under one year.
England and Wales	18.5	13.8	0.01	0.00	0.10	0.03	0.07	0.13	0.47	9.59	89
96 Great Towns, including London (Census Populations exceeding 50,000)	19.0	13.8	0.01	0.00	0.13	0.04	0.07	0.14	0.45	12.24	93
148 Smaller Towns (Census Populations 20,000—50,000)	18.3	12.6	0.01	0.00	0.10	0.03	0.07	0.12	0.39	8.67	90
London	18.3	13.4	0.01	0.00	0.08	0.03	0.05	0.18	0.47	16.22	85
Cannock	22.7	11.4	0.00	0.00	0.00	0.00	0.05	0.11	0.6	3.7	84

There were 25 inquests, or 6.5 per cent. total deaths, and 8 uncertified deaths (2 per cent.)



Poor Rate, 6s.

General District Rate, 4s.

Poor Law Relief.—I have no information as to this.

Rateable value of Urban District, £128,986.

HOSPITAL TREATMENT.

There is an Accident Home at Hednesford with 16 beds. This Institution is maintained chiefly by contributions from the Workers and Owners of Collieries and is staffed by the General Practitioners.

There are no other Hospitals in the District, and recourse is had to those at Walsall, Wolverhampton, Stafford, and Birmingham.

Sanitary Circumstances of the District.

Water.

The South Staffordshire Waterworks Company's mains are available for the greater part of the district. The water is of good quality with little or no plumbo solvent action, and generally speaking the supply is constant with good pressure.

Two high lying parts, viz., Pye Green and Cannock Wood are dependent on local wells. The question of Pye Green supply was under consideration before the war, and it is necessary for the Council to take it up again and carry a scheme through. Some houses in Cannock Ward get their supply gratuitously from four or five pumps under the control of the Conduit Trust. I have reported on the desirability of substituting the South Staffs. Water Works supply by providing taps on the sinks. The mains are available. The Conduit supply is not always sufficient in quantity and doubtful as to arrangements for ensuring its purity at all times.

It would appear from Sec. 64 of the Public Health Act, 1875, that this undertaking is under the control of the Council.

Wells exist in a few instances where the S. Staffs. supply is available, and in these cases tap water should be put on.

In the case of houses at Wedges Mills a sample of well water was reported by the Public Analyst to be of good quality.

The Council ordered the public supply to be put on at a house in Bridgtown Ward, which was dependent on a well liable to pollution, but this had not been done up to the end of the year.

There are many properties where a row of houses is supplied from a stand pipe. It is necessary that taps should be provided over the sinks.

DRAINAGE AND SEWERAGE.

The Surveyor has kindly supplied me with the following statement :

Brief Description of Sewerage and Sewage Disposal Schemes, in the Urban District of Cannock.

The Sewerage of the district is laid out on the partially separate system, but the private properties of the district are drained by foul water drains only, so that half the roof water is discharged into foul water drains at the back of the properties, as is also the whole of the storm water falling on the paved portions of the yards. The storm water falling on the front parts of the houses is generally carried through pipes to the channels in the streets and finds its way into the storm water sewers. Parts only of the built up area of the district are served with a satisfactory storm water system.

The whole of the foul water sewage is conveyed to one outfall, viz., the Sewage Farm at Cannock, the greater part by gravitation, and a small portion, viz., Bridgtown, having a population of three thousand, and part of the Cannock sewage being lifted by ejectors placed on the sewage farm.

The district of Cannock Wood part of the Urban District, which is of a purely rural nature, and one or two small outlying parts are not drained. The approximate number of houses not served by a drainage system is 150.

The Sewers are ventilated chiefly on the surface by open manhole covers, with ventilating shafts at certain points. On investigating the complaints of bad smells some of the surface ventilators have been closed by fixing closed manhole covers.

Latterly there has been a tendency to forego the trap between the private drains and the sewers.

Owing to this being a mining district, considerable subsidence is constantly taking place, and the sewers in these places have to be regularly flushed in order to keep them in working condition, and when they become unworkable the sewers have to be re-laid.

The Sewage Farm is 60 acres in extent, and the sewage on arriving at the Sewage Farm is gauged. The Summer dry weather flow is about 500,000 gallons. The character of the sewage is almost entirely of a domestic nature, and by the oxygen absorbed test is weak.

The Sewage is screened by a simple screen, with bars $\frac{3}{4}$ of an inch apart, prior to being gauged. Three times the dry weather flow is conducted through the detritus tanks, then passes through sedimentation tanks prior to being treated on fine gauge filter beds, and is distributed over these by travelling distributors of the Fiddian water wheel type, and then conducted straight to the water course.

The filtering material is generally of slag from 2 in. to 2 $\frac{1}{2}$ in. gauge at the bottom to $\frac{1}{2}$ in. at the top, and is four feet deep.

A further three times dry weather flow is treated as storm water which flows over the weir, and then passes through storm water detritus tanks, and is finally passed over land which was formerly used for downward filtration, and thence finds its way to the water course at the foot of the farm.

The effluent is periodically analysed, and satisfactory results have been secured. The following is a copy of the latest analysis.

	28/11/19.		
	Parts per 100,000.		
	Crude Sewage	Tank Effluent.	Bacteria bed. Effluent.
Total Solids dried at 212°F	135.8	62.4	92.8
Ammoniacal Nitrogen .....	.50	.80	.065
Albuminoid Nitrogen .....	.326	.180	.059
Nitric Nitrogen	Trace	.15	2.5
Combined Chlorine	9.8	7.2	7.8
Oxygen absorbed in 4 hrs. at 80°F	5.3	1.86	.49
Suspended solids dried at 212°F ...	48.2	5.6	8.4

(Signed) FRANK E. THOMPSON.

I have in the Section relating to " Water " mentioned the Pye Green portion of Hednesford Ward as being without a public water supply. The same locality is also without sewers, and it is desirable that some provision should be made, by a small local installation or otherwise. Certain houses in the following streets cannot be connected until the sewers are extended, viz., Heath Street (part of), Green Lane (part of), Gorsey Lane, Longford Lane, houses in Pye Green Road past Belt Road, top of Bradbury Lane, and Wedges Mills.

The question of subsidence mentioned in the Surveyor's statement is a difficulty inseparable from a mining district. Complaints have been made at Heath Hayes of sewage matter back pounding at times of storm owing to damage to the sewer. The quantity of sewage delivered at the works suggests that much subsoil water is entering.

Care should be taken that the Filter Beds are adequately rested.

As regards house drains a considerable number of nuisances arise from blocking often due to carelessness on the part of the tenants. Considerable extension of drains is required at some properties and provision of proper gulleys in place of objectionable forms of trap, and in cases where no trap exists.

Street channeling is required in places, for instance Huntington Terrace Road.

Increased attention to street scavenging and watering is required.

A serious defect at many properties is the absence, or bad condition of yard paving. Porous bricks have frequently been used

The remedy of defective drains and provision of new and repair of defective paving should be carried out at the same time as the provision of water closets.

METEREOLOGY.

Rain fell on 183 days. The rainfall measured at the sewage farm was 27.81 inches.

The greatest falls were 0.89 inch on March 19th, 1.2 on July 19th, 0.84 inch on October 24th, and one inch on December 22nd.

CLOSET ACCOMMODATION.

The Sanitary Inspector reports as follows :—

At the end of 1919 this was

Wet Ashpits	...	...	...	2,041
Dry Fixed	...	...	...	931
Waste Water Closets	...	...	...	620
Fresh Water Closets	...	...	...	2,287
Pans	...	...	...	118

Number of conversions during last four years.

Privies demolished	...	...	...	22
Ashpits demolished	...	...	...	21
New Water Closets	...	...	...	37
New dry Ashpits	...	...	...	6

Each wet ashpit has usually two privies in connection with it. It should be the aim of the Council to get all houses supplied with water closets as soon as possible, wherever a sewer is available. Some comprehensive line of action should be laid down. This outside work could be done while extensive internal repairs to houses are not so practicable owing to lack of alternative accommodation for the tenants.

SCAVENGING.

During the year the control of house scavenging was transferred from the Sanitary Inspector to the Surveyor. This is a course which I advised in my first annual report. The number of men now employed is greater than formerly and has recently been 22 or more. The prevailing type of closet accommodation is the privy midden. Many of them are too large, foul and wet. In some cases carts can be backed up to the middens, but in many the refuse has to be wheeled, and this involves fouling of streets and yards.

The refuse is deposited on various " tips " in the district and some is utilised by farmers. As the district gets more built up there will be fewer places suitable for " tips " and in any case they should be abolished, and a destructor provided.

Where dustbins are used they should be provided with securely fitting hinged covers not liable to be lost or misplaced.

There are 1,026 dustbins and 34 new ones have been substituted for fixed ashpits during the last four years.

SANITARY INSPECTOR'S REPORT FOR THE YEAR 1919.

TO THE CHAIRMEN AND MEMBERS OF THE SANITARY COMMITTEE,

GENTLEMEN,

I have the honour to submit my fourteenth Annual Report on the work done in my Department for the year ending December 31st, 1919.

This is the first Annual Report since 1915. In 1916 my two Assistants joined the Army, and it was found impossible to carry on the work of house-to-house inspection, as I had no assistance and a good portion of my time had to be devoted to the work of House Refuse Removal. This work was transferred to the Highway Department in June, 1919.

The details of the work of my Department are tabulated in the accompanying tables. I have to thank the Committee for the support they have given me in the work of my Department.

I am, Mr. Chairman and Gentlemen,

Your obedient Servant,

(Signed) JOHN TURTON,

Sanitary Inspector.

ANNUAL REPORT.

(GENERAL ORDER).

A. Number of inspections made during the year ...	907
B. Number of notices served	275
(a) Preliminary	142
(b) Statutory	133
(c) Result of service of such notices (Improvements)	1080

TABLE I.

No. of visits to Slaughterhouses and Meat Shops during the year	961
No. of visits to Markets during the year	38
No. of visits to Cowsheds and Dairies during the year ...	99
No. of visits to Knackeryards during the year	68
No. of visits to Bakehouses and Workshops during the year	7
No. of visits to School Sanitary Conveniences during the year	251
No. of visits to Common Lodging Houses during the year	94
No. of Canal Boats inspected during the year	59
No. of Inspections made under the H.T.P. Act during the year	348
No. of Inspections and re-inspections respecting notices and work in progress during the year	907
No. of visits to Scarlet Fever cases during the year ...	7

TABLE II.

No. of preliminary notices served during the year	...	142
No. of statutory notices (including Sec. 36 P.H.A. and H.T.P.A. 1909)	...	133
No. of letters written to Owners re nuisances	...	140
No. of Houses disinfected	...	55
No. of samples of Water Taken	...	1
No. of samples of water condemned	...	0

TABLE III.

	Notices.	Houses.
Privies and Ashpits	10	53
Defective Water Closets	23	32
Choked Water Closets	11	21
Choked waste water closets	4	3
Choked Drains	49	90
Untrapped, defective and insufficient drainage	9	7
Dampness, defective roofs, spouting, plaster, firegrates, etc.	48	58
Defective and loose paving	3	3
Foul brick sinks	2	2
Absence of water supply to Water Closets	7	6
Insufficient Water Supply	1	4
Accumulation of manure and animals kept so as to be a nuisance	4	4
Dilapidated Dustbins and absence of Dust Bins	7	7
Totals	184	290

SCHOOL SANITARY CONVENIENCES.

The Sanitary Conveniences at the various schools are regularly inspected. Any defects found are reported to the Secretary to the Education Authority. 251 inspections have been made during the year.

BAKEHOUSES AND WORKSHOPS.

There are 12 Bakehouses and 35 Workshops in the District, and seven inspections have been made.

Shoeing Smiths	...	5	Upholstering	...	2
Boot Repairers	...	7	Saddlery	...	1
Dressmaking	...	5	Cycle Repairers	...	1
Tailoring	...	6	Mason	...	1
Millinery	...	4	Sugar Boiler	...	1
Joinery	...	...	...	2	

COMMON LODGING HOUSES.

There are two Common Lodging Houses. These are regularly inspected. Inspections made 94. Special attention being given to cleansing and lime-washing. They are kept comparatively clean, and no occasion has arisen for serving notices, or the institution of proceedings through the contravention of the Bye-Laws, and no case of Infectious Disease has been reported.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.

I beg to report that there are 41 Registered Cowsheds in the District. There are 35 Cowkeepers and the number of cows kept is 187. The cowsheds have been visited periodically, and have been kept comparatively clean without the necessity of serving notices. Two new cowsheds have been built, and applications received for registration. One cowshed has been given up through the death of the owner. There are fourteen milk purveyors.

CANAL BOATS.

59 Inspections of Canal Boats have been made during the year. 26 inspections were made at Hednesford Basin, and 33 at Walk Mill Wharf.

74 occupied boats were inspected. There were also one hundred and thirty-eight registered boats locked up which were either loaded or being loaded.

In the course of my inspections four contraventions of the Canal Boats Act were found. In two instances the paint required renewing, and the other two were for leaky cabin roofs.

Notices were served on the Owners, and in one instance the defects have been remedied. Several minor defects were remedied by giving a personal warning.

I have given special attention to the condition of the cabins as to cleanliness and ventilation. With regard to the health of the occupants I find them comparatively clean and healthy with no evidence of any serious illness or infectious disease.

The following is a summary of the inspections, and of the occupants of the Boats inspected.

Insp'tions	Boats	Males	Females	Ch'ren.	1-3 yrs.	3-12 yrs.	12-14 yrs.
59	74	127	20	20	8	12	0

SANITARY IMPROVEMENTS CARRIED OUT AS A RESULT OF INSPECTIONS AND NOTICES SERVED FOR 268 HOUSES.

DWELLING HOUSES.

New Bedrooms	...	...	...	...	...	...	2
Bedrooms re-constructed	...	...	...	...	...	...	2

New Quarry Floors ...	...	...	...	...	...	...	27
Quarry Floors repaired ...	...	...	...	...	...	...	38
New Firegrates ...	...	...	...	...	...	...	12
Firegrates repaired ...	...	...	...	...	...	...	12
New Windows ...	...	...	...	...	...	...	26
Windows repaired ...	...	...	...	...	...	...	31
New Doors ...	...	...	...	...	...	...	7
Doors repaired ...	...	...	...	...	...	...	18
New Weatherboards ...	...	...	...	...	...	...	2
Wallplaster on walls repaired ...	...	...	...	...	...	...	153
Ceilings repaired ...	...	...	...	...	...	...	27
Roofs repaired ...	...	...	...	...	...	...	29
Rooms cleansed ...	...	...	...	...	...	...	54
New Fasteners ...	...	...	...	...	...	...	47
Cupboards repaired ...	...	...	...	...	...	...	1
Pantries provided ...	...	...	...	...	...	...	2
Cellars concreted ...	...	...	...	...	...	...	2
Stairs repaired ...	...	...	...	...	...	...	1
Walls pointed ...	...	...	...	...	...	...	30

SPOUTING.

Houses spouted ...	...	...	...	...	...	...	7
Spouting repaired ...	...	...	...	...	...	...	2

WASH HOUSES, ETC., INCLUDING SINKS, ETC.

New Washhouses ...	...	...	...	...	...	...	17
Washhouses repaired ...	...	...	...	...	...	...	14
Sculleries ...	...	...	...	...	...	...	2
New Sanitary Sinks ...	...	...	...	...	...	...	24
Sinks repaired ...	...	...	...	...	...	...	11
New Coppers ...	...	...	...	...	...	...	1
Coppers repaired ...	...	...	...	...	...	...	18
Scullery roofs repaired ...	...	...	...	...	...	...	16
Scullery floors repaired ...	...	...	...	...	...	...	6
Water pipes repaired ...	...	...	...	...	...	...	3

WATER CLOSETS, DRAINS, ETC.

New Water Closets ...	...	...	...	...	...	...	29
New Water Closet Basins ...	...	...	...	...	...	...	11
New Flushing Cisterns ...	...	...	...	...	...	...	3
Water Closets put in order ...	...	...	...	...	...	...	24
Choked Water Closets opened ...	...	...	...	...	...	...	11
Choked drains opened ...	...	...	...	...	...	...	53
Privy Conversions ...	...	...	...	...	...	...	5
Privies demolished ...	...	...	...	...	...	...	16
Ashpits demolished ...	...	...	...	...	...	...	13
Dustbins substituted for Ashpits ...	...	...	...	...	...	...	15
New Dustbins ...	...	...	...	...	...	...	12

New Dry Ashpits	...	...	...	...	...	...	...	6
Houses redrained	...	...	...	...	...	...	...	14
Yards of new drains	...	...	...	...	...	...	...	128
New Stoneware Gullies	...	...	...	...	...	...	...	2
Inspection Chambers provided	...	...	...	...	...	...	...	17
Drains ventilated	...	...	...	...	...	...	...	10
Pigstyes drained	...	...	...	...	...	...	...	2

PAVING.

Yards paved	...	...	...	...	...	...	...	24
Paving repaired	...	...	...	...	...	...	...	1

OTHER MATTERS.

New Coalhouses	...	...	...	...	...	...	...	11
Coalhouses repaired	...	...	...	...	...	...	...	3
New Chimney	...	...	...	...	...	...	...	2
Chimneys repaired	...	...	...	...	...	...	...	23
Bakehouses lime-washed	...	...	...	...	...	...	...	1
Slaughterhouses lime-washed	...	...	...	...	...	...	...	8
Cowsheds lime-washed	...	...	...	...	...	...	...	1
Overcrowding abated	...	...	...	...	...	...	...	1

Total Improvements 1080

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

Slaughterhouses	...	...	...	31
(a) Registered	...	...	...	11
(b) Licensed	...	...	...	21
Cowkeepers	...	...	...	41
Milk Purveyors	...	...	...	14
Offensive Trade	...	...	...	1
Mortuaries	...	...	...	2
Common Lodging Houses	...	...	...	2
Cinemas	...	...	...	5
Tents and Vans	...	...	...

There are Bye-laws and Regulations controlling the above with the exception of Slaughterhouses. The Regulations for the latter were under consideration in 1915 and require completion.

The number of Tents and Vans cannot be stated as it varies from time to time. I have investigated complaints of nuisance caused by van dwellers and reported to the Council cases where sanitary accommodation has been inadequate. The Regulations require "the person by agreement with, or by license from whom any tent, van, or similar

structure used for human habitation shall be erected "to provide water supply and privy accommodation.

These regulations should be enforced in every case where these structures are in frequent occupation.

No case of infectious disease in a van came to my knowledge during the year. The van dwellers are often clean and healthy people.

Probably there are 30 or more vans in the district at the present, but it is "here to-day and gone to-morrow" with some.

Cinemas.

One of the conditions endorsed on the licence issued by the Council is that free entry shall be accorded the Surveyor at any time when he visits for observation on the way the regulations as to exits, clear gangways, etc., are complied with.

There should be included the Medical Officer of Health for enquiry into ventilation and so forth.

Seeing the thousands of persons who visit these places, and the danger to health arising in the crowding of people together, great attention to the ventilation of these places is required. Most authorities require that children under a certain age shall be excluded at times of epidemic outbreaks.

With regard to ventilation the Council should consider the following recommendations made to the Birmingham Licensing Authority by Dr. W. H. Daveson, Assistant Medical Officer of Health after a detailed examination of 56 Picture Houses.

(1) That such a standard of ventilation be prescribed for the cinematograph exhibitions in the city that the proportion of carbonic acid in the air at about the breathing level should not rise beyond 20 volumes per 10,000 of air.

(2) That the space allowed per person should be fixed at a minimum of 120 cubic feet.

(3) That efficient extraction fans should be kept continuously at work during the programme.

(4) That any defects in the fans or other means of ventilation should be reported immediately to the Managers, and a book provided in which a record is kept stating the nature of the defect, when it was discovered, and steps taken to have the necessary repairs effected. This record to be available for inspection by the licensing authority on application for the renewal of the license.

(5) That adequate inlet openings be provided and kept freely open in such situations as will permit of uniform distribution of fresh air, and that all means of regulating the size of these openings or of closing them be removed.

(6) That in cold weather the incoming air should be heated, otherwise unbearable draughts will be experienced.

There seems to be no reason why windows should not be provided in the side walls of Cinemas. If made freely to open fresh air and sunlight could be admitted when desired, and lighting expenses saved during cleaning, which operation could be carried out under more favourable conditions. Efficient screening would, of course, be required to exclude daylight so as not to interfere with the illumination of the films.

The Picture House in the past has frequently done good work in health propaganda by films designed for that purpose, and can very powerfully aid in educating the public in a graphic and striking way.

Knackeryard.

The Sanitary Inspector reports as follows :--

There is one knackeryard. This is situated in a field at a considerable distance from any dwelling houses. The business is carried on in as satisfactory a manner as can be expected, considering the nature of the trade. This is licensed annually. During the year 68 visits of inspection have been made.

SCHOOLS.

There are 17 Public Elementary Schools, 9 provided, 8 non-provided, comprising 26 departments, and accommodating 5,958 children.

In the case of notified infectious disease exclusion certificates regarding "contacts" and cases are forwarded to the Head Teachers with instructions that these children shall not be re-admitted until resumption certificates are sent. These latter are forwarded after freedom from infection has been vouched for by a medical certificate, the children when it appears desirable being seen by myself. Negative swabs are required in the case of Diphtheria.

In the case of non-notifiable infectious disease exclusion certificates are also forwarded.

I have touched upon the sanitary condition of the Schools in my report as School Medical Officer. As your authority are aware they require much attention, especially the older ones, which were built without much regard to modern requirements in the matter of ventilation, lighting, etc. All these matters will take time to put right, and steps are being taken to carry out renovations and painting during the coming year.

All the Schools have the public water supply and all, with the exception of Rawnsley, where no sewer is available, have latrines with automatic flush.

The following conditions were found on a recent inspection of the departments specified.

Heath Hayes Girls.

ACCOMMODATION, 287. Five class rooms.

FURNITURE.—Some dual desks, the rest of obsolete type. Gallery in two rooms.

LIGHTING.—(a) Natural. Ground glass requires removal. In one room the bottom of windows are too high, 10 feet from floor. In another room this applies to one side.

(b) Artificial. Good.

VENTILATION.—By Hopper openings—cross ventilation above corridor. Junior room especially gets stuffy.

HEATING.—Low pressure hot water—satisfactory. Fires in three class rooms.

CLOAK ROOM.—Provision required—237 pegs in corridor, and small room for 50.

LAVATORY.—Three separate basins, also slopstone.

DRINKING WATER.—From uncovered tank in cloak-room. Should be direct. Enamelled cups.

CLEANLINESS.—Walls dirty throughout. Renovation of flooring to be done.

PLAYGROUND.—Unpaved.

CLOSETS.—Seven with flush. Flushed by caretaker twice daily. The number is barely sufficient. Drains give trouble.

Heath Hayes Infants.

ACCOMMODATION, 250. Four class rooms, no teachers' room.

FURNITURE.—36 dual desks—others long. Three galleries.

LIGHTING.—(a) Natural. Fair—some ground glass.

(b) Artificial (hardly required). Naked gas burners.

VENTILATION.—Sherringham valves. Roof ventilators Hoppers. Some of these do not open. Some rooms stuffy. No cross ventilation.

HEATING.—Low pressure hot water. One open fire. Satisfactory.

CLOAK ROOM.—Two—both inadequate.

LAVATORY.—Three basins. Taps over required.

DRINKING WATER.—From main. China Cups.

WALLS.—Distemper scaling. Very dirty.

FLOORS.—Wood blocks. Fair condition.

URINAL.—20 feet length. Concrete back. Not partitioned.

CLOSETS.—Six Automatic flush—sufficient.

PLAYGROUND.—Asphalted. Some mining subsidence.

Heath Hayes Boys.

ACCOMMODATION, 259. Four class rooms.

FURNITURE.—Some new. Desks and seats for upper standards too small.

LIGHTING.—(a) Natural.—Windows too high, also ground glass. Not good.

(b) Artificial.—Incandescent. Poor.

VENTILATION.—Hoppers. Sherringham valves. Roof ventilator, said not to act. Some rooms get rather offensive. Not good.

HEATING.—Low pressure hot water. Open fires. Satisfactory.

CLOAK ROOM.—Along corridor—inadequate.

LAVATORY.—Four basins. Discharge pipe too horizontal. Easily blocks.

DRINKING WATER.—From main—no cups.

CLOSETS.—Four and one for teachers—automatic flush.

URINAL.—16 feet length undivided, concrete back. Tap to flush but placed at discharge end.

PLAYGROUND.—Unpaved.

WALLS.—Some cracks. Distemper scaling, very dirty.

FLOOR.—Boarded. Fair.

West Hill Infants.

ACCOMMODATION, 269—Five Class Rooms.

FURNITURE.—One set dual desks. Tables and chairs required. Long desks no back rests. Standard IB desks too small.

VENTILATION.—Hopper and other openings (Tobin's tubes blocked outside). Not cross. Roof ventilator. More Hopper openings required in four rooms.

LIGHTING.—(a) Natural. Ground glass and coloured glass.

(b) Artificial. Incandescent.

HEATING.—Low pressure hot water and open fire. Satisfactory. Boiler being renewed.

FLOORS.—Boarded. Broken slightly.

WALLS.—Distemper scaling—dirty.

CLOAK ROOM.—Heated—pegs too close. Few Pegs broken. Dirty.

LAVATORY.—Six Basins boarded in underneath—dirty. Discharge pipe not disconnected

DRINKING WATER.—From main. Enamelled cup.

CLOSETS.—Five, and one for teachers. Automatic flush.

URINAL.—Twelve feet—one slate division—no flush. Concrete back perishing.

PLAYGROUND.—Not paved. Drains from closets often blocked and portion playground deep in water.

West Hill Boys.

ACCOMMODATION, 338.

FURNITURE.—100 dual desks. Old desks no back. Not graded to size of scholars.

VENTILATION.—Hoppers. Sherringham valves. Swing windows in roof. Very poor.

LIGHTING.—(a) Natural Some windows too high from floor. More required. Some ground glass.

(b) Artificial. Incandescent.

HEATING.—Low pressure, and open fire. Good.

FLOORS.—Boarded—badly worn in parts.
WALLS.—Scaling and dirty.
CLOAK ROOM.—Two—not heated. Older one walls very dirty.
Broken dirty floor. Pegs broken.
LAVATORY.—Four basins. Supply pipe exposed, and gets frozen, no water. Discharge pipe very long and unsatisfactory. Should discharge into fountain head. Gulley blocked with mud. Dangerous worn steps to playground.
PLAYGROUND.—Partly paved.
DRINKING WATER.—From main. One cup.
CLOSETS.—Seven places—one for Teachers.—Automatic flush.
URINAL.—20 feet. Five slate partitions. Concrete back rather foul. Horizontal flush.

Food.

MILK.

The unsatisfactory position as regards the milk supply in this country has long been under discussion, and the report of the Departmental Committee on the "Production and Distribution of Milk" which has recently been published points out that the supply is neither adequate nor pure. Few people understand that this is so, and that there are inherent difficulties in obtaining an adequate and pure supply at a price available for the poor consumer.

Far from being pure, much of the milk retailed is very dirty. It is exposed to pollution from the cow, the milker, the cowshed, and in delivery. After reaching the home of the consumer it is allowed to become dirtier still owing to ignorance or inadequate facilities.

The chief point about milk pollution lies in the fact that germs rapidly multiply in it, and if it was not an opaque, but a transparent fluid, the number of germs often present would be sufficient to render it cloudy in appearance.

After various recommendations as to a national policy, methods of research in dairying, and economy in production, the Committee proceed to state that all producers and dealers in milk should be licensed, and that a system of grading milk should be introduced based on bacteriological examination and on methods of production and treatment.

The Committee also deals with railway transport.

With regard to the adoption of milk depots it is suggested they should be of three specified types, as follows:—Chilling depots, drawing milk from a comparatively short radius—10 miles—capable of handling up to 500 gallons. Larger depots, still confined to liquid milk, with a capacity up to 2,000 gallons. Depots for dealing

with liquid milk, but equipped with cheese making plant and with a capacity of from 500 to 2,000 gallons.

As regards retail distribution two deliveries a day are required if milk is to be fit for consumption by infants.

The ideal of delivery in bottles seems impracticable at a reasonable price in this country.

As regards local conditions, the Executive Officer of the Food Control Committee informs me as follows :—

Returns for week ending 31st Jan., 1920.

Milk produced in district.

Milk produced outside.

1,509 gallons retailed.

3,072 gallons retailed.

From this it would appear that 4,581 gallons were used in the week of which one third was produced in the district.

These figures suggest that some of the milk produced in the district is sold outside, judging from the number of dairy cows kept, unless indeed the average yield for some reason or another is low.

The milk brought from outside the district comes by road except a small quantity of "train" milk. This latter is not fresh on its arrival.

The Dairies, Cowsheds and Milk Shops Orders, and Regulations made thereunder by the Council December 1914, lay down conditions, which if observed would bring about a cleaner supply. It is laid down that every person carrying on the trade of a Cowkeeper, Dairyman, or Purveyor of Milk must be registered with the Local Authority, and that it is not lawful for any cowkeeper or dairyman to begin to occupy a building as a dairy or cowshed until he has given one month's notice in writing, and has made provision to the reasonable satisfaction of the Council for the lighting, ventilation, including air space, and the cleansing, drainage, and water supply.

The Cowkeeper shall not cause or suffer any cow to be milked unless the udder and teats of such cow are thoroughly clean; and the hands of the person milking such cow are thoroughly clean and free from all infection and contamination.

Milk shall not be deposited or kept in any room or place where it would be liable to become contaminated by impure air, or in any room used as a kitchen or a living room. These rules are infringed. In some cases milk rounds have been bought and trade commenced by persons before registration has been applied for. Retail of milk is carried on by persons who have provided no proper dairies, and I have seen milk left over from the round being sold from back kitchens with sinks in them.

The scalding of big churns with a supply of hot water heated on an open fire is not likely to be satisfactory, and cases exist where the churns stand on the yard paving close to the yard gulley.

Some structural improvements were effected in the Cowsheds

before the war, but dirty milk can be produced in any cowshed unless cleanly methods are practised.

What is needed is a realisation by the public that they are not getting clean milk, and that germ laden milk although apparently drunk with impunity by adults, is not fit food for infants and young children. The mere straining of milk and removal of particles visible to the naked eye has no good effect as far as the bacterial content is concerned. The use of a hooded milk pail and the immediate cooling of the milk are two precautions which have great effect in excluding germs and limiting their development.

It is therefore essential that persons trading in milk should have some knowledge of the hygienic aspect of the case or is it likely that they can be got to carry out precautions the object of which they do not follow? Pure milk is certainly as important as pure beer.

The Council should therefore again make it known by advertisement that registration is essential, and they should consider, in view of the latitude which has been allowed, how long they will allow those persons, whose premises do not comply with the Regulations, to put things in order. It would be more practicable to control if the milk trade was in the hands of a few careful, well equipped traders.

It will be seen that the quantity of milk consumed in the district does not equal a pint per house per day, but it must be remembered that much dry and condensed milk is used.

The Milk and Dairies Act, 1914, which was suspended owing to the war, gives powers with regard to Tuberculous Milk and permission to authorities to appoint Veterinary Surgeons and to provide for bacteriological analysis of milk.

Householders should keep milk covered, at a low temperature, and the jugs or bowls into which it is received should have been thoroughly cleansed with boiling water immediately before. It is of interest to note that in November, 1919, the City of Providence, U.S.A., population 268,000, consumed 80,000 quarts of milk daily, costing 17 cents (8½d.) per quart. This is three times as much as Cannock uses in proportion. I understand the American gallon is one-fifth less than English.

Milk (Mothers and Children Order) 1918.

On the issue of this Order, 8th February, 1918, the Council designated me as the officer for the purpose. The priority scheme having been adopted by the Food Control Committee, the Health visitors were instructed to enquire as to cases not being supplied with sufficient milk. On their report to me a recommendation for a priority supply certificate, signed by the Health Visitor, and countersigned by me, was handed to the Mother with instructions to take it to the Food Office. Some difficulties were experienced in getting the priority certificates issued by the Executive Officer honoured. Milk was very

scarce at the time, and retailers on being applied to for milk by persons who did no regular trade with them were loth to supply. Further, the mothers sometimes failed to carry out the necessary procedure. Complaints were investigated and brought to the notice of the Food Control Committee, and pressure was brought to bear, and it is safe to say that some children were saved from illness and even death by this Order.

In the case of necessitous families a record prepared on a "Necessitous Card" is filled up by the Health Visitor and countersigned by me if approved, following which an order from the Council to a tradesman to supply a definite quantity for a stated time has been issued. In nearly all cases it has been found advisable to recommend the whole cost to be defrayed by the Council.

During 1919 fourteen families were supplied with liquid milk for consumption by mothers and children under five years of age, at a cost to the Council of £21 4s.

The above Order was revoked and re-enacted with alteration and addition by an Order made on December 22nd, 1919, which empowers local authorities to supply milk free or at less than cost price where the cases are not necessitous. In connection with this I may say that this step does not appear to be necessary. On receipt of a circular (23) from the Ministry in October I circularised all the doctors and midwives asking them to report to me any expectant and nursing mothers who in their opinion required an additional supply of milk and no person has been so reported.

The Priority Scheme should still be kept in force.

Other Foods.

There are many premises in the district used for the preparation of pork products, such as sausages, polonies, pork pies, black puddings, brawn, and other potted meats, and the conditions under which much of this work is done are unsatisfactory. If it is done in a slaughter house or place in air communication, faecal contamination is very liable to occur. In some cases kitchens are used or places with sinks in them and this is not desirable.

The tables, machines, and their surroundings should be kept scrupulously clean, and workers should have clean hands and be provided with overalls. These conditions do not obtain. Fresh legislation is wanted requiring license of these premises and giving control over the trade.

During the war some improvement resulted after inspection, in places where contracts for army supply had been secured, but this means of bringing pressure to bear no longer obtains. Some pork pies are made up with meat brought from another district. I have seen pork pie pastry deposited on boards over dirty surface drains, so as to harden it in the open air.

Owing to absence of powers I have experienced difficulty in the case of ice cream manufacture.

SLAUGHTERHOUSES AND MEAT SHOPS.

The Sanitary Inspector reports as follows :—

“ There are 31 slaughter houses in the Cannock District, 20 licensed and 11 registered. 18 applications were received for renewal of licenses, and two for permission to slaughter on premises which had lapsed. All the applications were granted for one year under the Public Health Act (Amendment 1890). The number of visits of inspection was 961, and the total amount of food surrendered being :—

						Cwts	Qrs.	lbs
Beef	diseased or unsound	...	...	...	...	13	3	12
Pork	„	„	„	...	...	2	0	0
Bacon	„	„	„	...	...	—	2	8
Offals	„	„	„	...	...	3	1	0
Rabbits	„	„	„	...	...	—	3	0
Tomatoes	„	„	„	...	...	—	1	20
Carrots	„	„	„	...	...	8	0	0
Parsnips	„	„	„	...	...	20	0	0
Total						2 tons	8 cwts.	3 qrs. 12 lbs

“ During the inspections, one slaughterhouse was found to be defective, and is receiving alteration. The general condition has been satisfactory. It was only necessary to serve notices in one instance for lime-washing.”

There is no public abattoir. The Sanitary Inspector reported that he paid 961 visits to slaughter-houses and meat shops. No tubercular meat was seen. Although there are 31 slaughter-houses, since food control the bulk of meat has been killed in four slaughter houses. This takes place on two days in each week, and the Inspector has seen most of the meat at the time of slaughter.

While the structural condition in some is poor, these places are kept fairly clean internally, but the surroundings are sometimes not as sanitary as they should be.

Non-absorbent covered vessels for removal of refuse products are not provided.

BAKEHOUSES.

Five of these are factories, and 12 are workshops.

There is a tendency towards use of more machinery, and the bulk of the bread supply is in the hands of persons using factory bakehouses. The other smaller traders who occupy workshop bakehouses have no machinery. One of these premises in particular, regarding which a prosecution was taken some years ago is still unsatisfactory, being

Table II.—Cases of Infectious Disease notified during the Year 1919.

NOTIFIABLE DISEASE	CASES NOTIFIED IN WHOLE DISTRICT.								TOTAL CASES NOTIFIED IN EACH LOCALITY.							TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years,							Cannock Ward	Bridgtown Ward.	Hednesford Ward.	Littleworth Ward.	Chadsmoor Ward.	Heath Hayes Ward.	Workhouse	
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upw'rds								
Measles	90	5	33	49	1	2			25	8	2	36	16	3	7	
German Measles ...	17		6	10	1				4	1	8	1	3			
Diphtheria (including Membranous Croup)	48		9	31	5	3			14		17	5	8	4		
Erysipelas	12	1			1	3	7		2	2	3	3	1	1		
Scarlet fever	11		1	9	1				4	2	1	3	1			
Pneumonia	55	1	11	6	8	21	5	3	18	1	11	6	16	3		
Malaria	10				3	7			4	1		1	4			
Poliomyelitis	2		1	1					1		1					
Pulmonary Tuber- culosis	44		1	12	7	23	1		12	1	10	5	13	3		
Other forms of Tuberculosis	8	1	1	5			1		1		2	1	2	2		
Ophthalmia Neon- atorum	8	8							2		2	1	2	1		
Totals... ..	305	16	63	123	27	59	14	3	87	16	57	62	66	17	7	

very dilapidated with worn floor and poor light, and ventilation.

Generally speaking these places and the methods employed are not as cleanly as they should be considering the trade is preparation of human food.



Prevalence of and Control over Infectious Diseases.

The following is a list of the notifiable diseases :—

Small pox	Puerperal Fever.
Cholera	Cerebro Spinal Fever.
Diphtheria	Acute Poliomyelitis
Membranous Croup	Encephalitis Lethargica
Erysipelas	Ophthalmia Neonatorum
Scarlet Fever	Tuberculosis
Typhus Fever	Malaria
Typhoid Fever	Dysentery
Enteric Fever	Trench Fever
Relapsing Fever	Acute Primary Pneumonia
Continued Fever	Acute Influenzal Pneumonia

In addition Measles and German Measles were notifiable during 1919.

Pneumonia, Malaria, and Dysentery were made notifiable for the first time in 1919.

Ten discharged soldiers were notified with Malaria, which had been contracted abroad. No dysentery or trench fever was notified. Broncho Pneumonia, or Pneumonia secondary to other diseases such as Measles or Whooping Cough is not notifiable.

Cases of Pneumonia notified were 55, as follows :—

March, 17 ; April, 7 ; May, 5 ; June, 9 ; July, 1 ; August, 6 ; October, 7 ; December, 3. The 55 cases occurred in 51 houses, one

house had 3, and two houses two each. I prepared a leaflet of advice which the Sanitary Inspector left at the houses when investigating cases. Some cases occurred in all the wards.

INFLUENZA.

32 deaths were registered of persons dying from Influenza in the district, namely, January, 5; February, 13; March, 6; April, 6; May, 2.

No deaths have occurred since May.

A Committee of three members have been appointed, comprising the Chairman and two other members of the Sanitary Committee, to act as an Influenza Committee. The Council did not delegate the power of spending money.

I have had reprinted copies of the Ministry's circular distributed through the upper standards in the Schools, and a further stock are in hand. Two medical practitioners have been recently supplied with vaccine obtained from the Ministry of Health. I am hopeful that the entire area will soon be served by District Nurses. The inhabitants do not appear anxious to avail themselves of Home Helps such as are available, and they are very scarce. Properly trained persons are required.

NON-NOTIFIABLE DISEASE.

The teachers reported the following :—

Measles	5
Scarlet Fever	1
Diphtheria	4
Varicella (chicken pox)	24
Mumps	9
Whooping Cough	23

DIPHTHERIA.

Notified cases and deaths during last five years :—

Year	Cases Notified.	Deaths.
1914	33	11
1915	21	3
1916	33	6
1917	17	6
1918	45	14
1919	48	4

The cases reported in 1919 were not of an epidemic character, some occurring in every month and 39 houses were infected. There were cases in every ward with the exception of Bridgtown. There was no evidence of infection through milk, nor did school-attendance appear to be a factor in spread. Nine of the cases were under school age, and ten over.

Nuisances existed at the premises in 9 cases.

Patients and contacts are excluded from school.

Seven patients were isolated in the Joint Small Pox Hospital, and two contacts who were found, from examination of nasal swabs, to be "carriers" were also removed there.

One case was discovered by myself in school, and another case was discovered by myself in the home which I visited owing to information received from a Health Visitor. Swabs are taken and resumption certificates from me are required before-re-admission to School both for contacts and patients.

These are not issued until Bacteriological reports are satisfactory on two occasions. Special measures were taken in the case of an infected house where milk trade was carried on.

Communication was made to the Army Authorities in a case where a soldier was on leave at an infected house, also in a case where washing was being done for Rugeley Camp.

"Antitoxin" is supplied free to Medical Practitioners. Owing to improved medical service since doctors were released from the Army cases have received prompter attention and administration of antitoxin, and to this, along with a milder type of disease in many cases, I attribute the lowered mortality rate. There are also no doubt fewer mixed cases. None of the four cases which terminated fatally received Antitoxin.

In one case a boy of five, of 23, Old Buildings, Rawnsley, was not seen by the doctor till five minutes before death, the parents not having sent for him until that day, although they had obtained medicine for him four days previously.

The other three deaths were a boy of 9, at 2d, John Street, Chadsmoor, seen by Doctor one day before death, and two days after onset; a boy of 14, at 50, Stafford Road, Cannock, who was seen by a doctor, less than 24 hours before death, and 9 days after onset; and a child of six, at 49, S. John's Road, who was seen by doctor at his Surgery two days before death on the second day of illness. This latter death was registered as due to Membranous Croup.

Many patients get up too early, and cases of partial heart failure giving rise to unpleasant not to say alarming symptoms, result. Post-diphtheritic paralysis was observed in several children.

SCARLET FEVER.

Notified cases and deaths during last five years: --

Year.	Cases Notified.	Deaths.
1914	383	14
1915	133	2
1916	46	0
1917	27	0
1918	30	0
1919	11	0

There has been a remarkable freedom from scarlet fever mortality. No deaths have occurred in the last four years, and the small number of cases occurring this year have been of a mild type. The germ of scarlet fever not having been discovered, clinical diagnosis, which is frequently difficult in mild sporadic cases, cannot be supported by bacteriological tests. 1913 and 1914 were years of epidemic prevalence in this district.

TUBERCULOSIS.

The cases notified during the year were pulmonary 44, other forms, 8, viz., Spine, 1; Hip Joint, 1; Meningitis, 3; Glands, 3. Deaths registered during the year were :—

Pulmonary 17, other forms 6.

Twelve of these fatal cases had not been notified to me. I have communicated with the Doctors who certified the deaths about this. Of the fatal cases which had been notified, except one which was notified on the day of death, all were reported in reasonable time.

The work of the Health Visitors is as follows :—

Primary visits paid	...	...	47
Periodical re-visits paid	...	...	408
Special re-visits paid	...	...	19
Useless re-visits paid	...	...	18

The Health visitors do what they can by suggesting re-arrangement of sleeping accommodation to limit the spread of infection. It is seldom that any precautions are being taken on the first visit, unless in cases which have been treated at Sanatoria; 36 of these patients were not using a separate bed, and 39 were not using a separate bedroom, 14 were not observing cough and sputum precautions where this was very necessary, and 9 showed determination to keep their windows closed.

Leaflets of advice are distributed, and sputum flasks are supplied. Sanitary defects are noted, and in 23 houses these existed, the chief and most usual being dampness.

In four cases there was overcrowding. Three shelters were supplied during the year, for men who had returned from Sanatorium treatment, by the Tuberculosis Joint Committee. When these structures can be erected in a private yard or garden their use is practicable, but it is very difficult to induce patients to occupy one in a common yard and in case of women and children not desirable.

The Sanitary Inspector deals with disinfection of shelters and houses, but more frequent disinfection will be required in future as more notices are now being received of admissions to Sanatoria. Thorough wet disinfection by spray, and cleansing of rooms should always be thoroughly done, and bedding removed for sterilisation.

The Tuberculosis Officer for Mid. Staffs, attends at the Branch Dispensary in Cannock twice weekly. Better accommodation is required

Infantile Mortality during the Year 1919.

Nett Deaths from stated causes at various Ages under One Year.

CAUSE OF DEATH.	Under 1 Week	1—2 Weeks.	2—3 Weeks.	3—4 Weeks.	Total under 1 Month.	1—3 Months.	3—6 Months.	6—9 Months.	9—12 Months	Total Deaths under one Year.	Cannock	Bridgtown	Hednesford	Littleworth	Chadsmoor	Heath Hayes	Workhouse
All causes { Certified ..	12	10	4	2	28 16	14	9	8	5	64							
Uncertified ...	4				4			1		5							
Small Pox																	
Chicken Pox																	
Measles																	
Scarlet Fever... ..																	
Whooping Cough																	
Diphtheria and Croup																	
Erysipelas																	
Tuberculous Meningitis ..							1			1					1		
Abdominal Tuberculosis ...							1			1					1		
Other Tuberculous Diseases																	
Meningitis (not Tuberculous)																	
Convulsions								1	1	2			1			1	
Laryngitis																	
Bronchitis		1			1	3			1	5		1		3	1		
Pneumonia (all forms) ...						1	3	2	2	8	1	1	3	1	1	1	
Diarrhoea						1		1	1	3	1				1	1	
Enteritis																	
Gastritis																	
Syphilis																	
Rickets				1	1					1	1						
Suffocation, overlying																	
Injury at Birth																	
Atelectasis	2	1			3					3	1			1	1		
Congenital Malformations ...																	
Premature Birth	7	5	1		13					13	1	1	1	1	5	4	
Atrophy, Debility and																	
Marasmus	4	3	3		10	7	3	1		21	2	1	3	4	7	3	1
Other causes	3			1	4	2	1	4		11	1	1	2	2	3	1	1
Totals	16	10	4	2	32	14	9	9	5	68	8	5	10	12	21	11	2

Births in the Year—Legitimate, 760 ; Illegitimate, 34. Deaths—Legitimate, 63 ; Illegitimate, 4

than the two rooms in a small dwelling house which he at present has to use.

Local authorities do not appear to be much in touch with the doings of the Tuberculosis Joint Committee, and I have never seen a report of their activities.

In a former report I recommended that the Tuberculosis Officer should be appointed an officer of this authority at a nominal salary so as to secure complete co-operation. This has not been done, and I again invite the Council to consider it. It would then be possible to get information as to the number and condition of persons attending the dispensary.

The Health Visitors endeavour to get "contacts" to attend the Dispensary. Miners who have suffered from Pulmonary Tuberculosis are not fit for work in the mine. The former working capacity is not regained. It is necessary that these men should follow some lighter occupation. This they at first do after return from sanatoria, but owing to their insurance sickness benefit being stopped as soon as they commence any kind of work, they are driven to try work in the mine again.

Discharged soldiers have their pensions whether at work or not, and it should be possible to pay sickness benefit on the same principles so that the men could do as much work as is good for them in cases of Tuberculosis, and receive benefit in proportion to their efficiency for work.

Maternity and Child Welfare.

The Statutory Committee appointed for this purpose consists of nine members of the Council with three co-opted members, viz., Mrs. Ingram, Mrs. Price, Mrs. Webster. The work carried out is comprised of (a) Health Visiting, (b) Nursing, (c) Midwifery, (d) Child Welfare Centres.

(a) There are four Health Visitors, each responsible for a separate district, who give half their time to the combined duties of health visiting of infants, attendance at Welfare Centres, and Tuberculosis visiting. The other half of their time is taken up by school work as school nurses, including treatment at School Clinics. These officers all hold the Certificate of the Central Midwives' Board, and have had nursing training and experience.

The Notification of Births Act, which requires notification of all births, and still births occurring after the 28th week of pregnancy, to be notified to the Medical Officer of Health within 36 hours, forms the basis of health visiting. Care has therefore been taken to get its provisions observed by those responsible. Notification regarding 811 births were received during the year. The local registrar is supplied

with a weekly list of these, and she reports to me as to any birth registered by her which has not been notified. These numbered 17 during the year; that is just two per cent. only of births failed to be notified. Enquiry is made into each case, and the person who appears to be at fault is communicated with. A more or less satisfactory explanation has been almost invariably received. Occasionally notification is not made within the time specified, and I have had to warn one midwife of repeated delay. Generally speaking the Act is well observed.

WORK OF HEALTH VISITING DURING 1919.

Primary Visits paid to Infants	832
Feeding at First Visit :	
Breast only	692
Hand partially	22
Hand entirely	55
Conditions at First Visit :	
Good	615
Fair	123
Bad	21
Dead	22
Still Born	40
Mother :	
Good	582
Fair	206
Bad	24
Dead	1
Total re-visits	4499
Breast fed, 6 months	310
Visits over one year	2225
Useless Visits	320
Special Visits	181
Visits to Measles	182

The first visit to infants is paid ten days to fifteen days after the birth when the midwife's visits terminate. It is important that these visits should not be hurried. The good done is not to be measured by the number of visits only. Especially does it pay to give plenty of time to the Mother with her first baby. Literature in the form of leaflets of advice as to infant management, are provided for the Health Visitors to distribute.

It is desirable that systematic visiting of children up to school age should be carried on, but the staff is insufficient to achieve this in this district, where practically all children need this supervision and routine work is so often interrupted by epidemics. Children over one year of age are visited as much as possible, and the table shows the number in 1919.

STILL BIRTHS.

From investigation of 44 still births which occurred in the year the following information appears :—

PREVIOUS HEALTH OF MOTHERS—26 good, eight fair, six poor, four bad.

PHYSIQUE OF MOTHERS—appeared normal in 36 cases, in six fair, and in two, poor. One mother was of alcoholic habits.

PREVIOUS MISCARRIAGES- 19 had occurred in 12 of these 43 women.

DOCTOR IN ATTENDANCE in 13 cases.*

NO DOCTOR OR MIDWIFE PRESENT, in six cases.

SUPPOSED CAUSE :—

Monsters	...	...	...	...	...	2
Placenta Prævia	...	...	...	...	...	2
Ante-natal hæmorrhage	...	...	...	...	...	4
Fright	...	...	...	...	...	1
Worry	...	...	...	...	...	1
Diarrhœa	...	...	...	...	...	1
Cough...	...	...	...	...	...	2
Nephritis	...	...	...	...	...	2
Influenza and Pneumonia...	...	...	...	...	...	5
Endometritis	...	...	...	...	...	1
Previous Abdominal Operation	...	...	...	...	...	1
Uterine Cancer	...	...	...	...	...	1
Excessive Vomiting	...	...	...	...	...	1
Alcohol	...	...	...	...	...	1
Violence—falls, etc.	...	...	...	...	...	3
Transverse presentation	...	...	...	...	...	2
Difficult Labour	...	...	...	...	...	1
Prolonged Labour	...	...	...	...	...	2
Tuberculosis in Husband	...	...	...	...	...	1
Want of attention	...	...	...	...	...	2
Unknown	...	...	...	...	...	8

In five cases delivery was instrumental. In one case of want of attention no midwife had been engaged, and in the second case an uncertificated midwife was not sent for until birth was partly completed in a case of breech presentation. Under good arrangements for treatment and attention no doubt several of these still births could have been obviated.

INFANT DEATHS.

These are the subject of enquiry, and particulars regarding 66 show the feeding in 48 to have been as follows :—

Breast fed	...	...	...	...	...	21
Mixed feeding	...	...	...	...	...	13
Hand fed	...	...	...	...	...	14

The remainder died so soon after birth that no record of feeding is possible. In some cases weaning had been resorted to for insufficient reasons, or causes which should not have arisen.

Of the 65 houses in which these deaths occurred (twins having died in one house) 15 had water closets, and the remainder privy middens.

The history of the illness and the length of time the case was under a doctor are also enquired into, and it appears that a considerable number of infants would have a better chance if they were removed to an institution for nursing.

INFANT MORTALITY.

In an important report made by the then Medical Officer to the Local Government Board based on the experience of 241 urban areas with a total population of 21 millions, it was shown that the death-rate in Cannock (1907-10) bore the following relationship to the average of the 241 towns (1907-10)

Death rate for the first month of life, 23 per cent. above.

Death rate for first three months, 16 per cent. above.

Death rate from premature birth and congenital defects, 36 per cent. above.

Death rate from premature birth, injury at birth, want of breast milk, atrophy, debility, and marasmus, grouped together and termed "group of five," 36 per cent. above.

As compared with 111 small towns, 1907-10, Cannock was :—

Eleventh highest in death rate 0-1 month.

Ninth highest in death rate for premature birth.

Eighth highest in death rate for "Group of Five."

At other ages and for other causes Cannock was below the average.

Generally speaking a very high infantile mortality has been found in localities associated with the mining industry. The causes which have been assigned are : a high birth rate, limiting the amount of care possible to the individual child ; the fact that miners belong to lower social strata than textile workers ; that the standard of domestic cleanliness is not high ; and that conservancy methods of excrement and refuse disposal predominate.

The following table shows the death-rate per, 1,000 births in this district during the previous five years, at ages 0-1 month, and one month to one year.

Year.	Under 1 month.	1 Month to 1 Year.
1914	47.	82.
1915	40.2	58.7
1916	43.5	48.0
1917	46.3	52.
1918	41.8	82.5
Average	43.7	64.6
1919	40.8	47.2

The death rate 0-1 month is called the neo-natal rate. The average for the five years 1910-14 was 50.4.

For the same period the average death rate one month to one year was 73.9. This means that the deaths at ages one month to one year have decreased about 40 per cent. more than the neo-natal deaths under one month. The first conclusion is the fact that the reduction in Infant Mortality being shown chiefly at ages over one month, points to the need of ante-natal care to combat the wastage under one month. At the same time increased attention at and immediately after birth would in itself reduce the first month's deaths.

Analysing the figures in another way to show the cause of death (rates per 1,000 births being again shown) we have.

Year	Diarrhœal.	Respiratory	*Congenital.	All Causes
1914	20.0	29.6	49.0	129.
1915	9.8	19.6	44.5	99.
1916	5.5	20.0	43.5	91.5
1917	10.4	17.3	52.0	98.
1918	8.1	33.7	51.0	124.
Average	10.7	23.5	48.	108.
1919	3.8	16.6	48.5	88.

Note-* includes premature birth, congenital malformations, atrophy, debility, marasmus, injury at birth, atelectasis, syphilis.

In 1918 there were nine deaths under one year from Influenza.

The number of deaths under one year in the different wards are as follows :—

Ward.	Estimated Population.	Notified Births	Deaths under one Year.
Cannock	7985	193	8
Bridgtown	3307	55	5
Hednesford	5880	182	10
Littleworth	4368	90	12
Chadsmoor	6132	201	21
Heath Hayes.....	4268	112	11
Workhouse	—	—	2

I am unable to give the registered births in wards.

NURSING ASSISTANCE.

There is a District Nursing Association, who provide district nursing in Cannock and Bridgtown Wards, and a second Association provides for Chadsmoor Ward. Each Association employs one nurse. The Council contribute £25 per annum to each of these in consideration of which the nursing of measles, whooping cough, polionmyelitis, epidemic diarrhœa, puerperal fever, and ophthalmia neonatorum are undertaken. Regarding the other half of the district the County Nursing Superintendent has promised to establish nurses at an early date.

In the meantime I have been authorised to engage a special nurse in the event of an epidemic of measles in that portion of the district.

MIDWIFERY.

Six midwives holding the certificate of the Central Midwives Board reside and practise in the district, and also six bona fide registered midwives. About 20 per cent. of the births are attended by doctors. One woman who was previously on the roll as a bona fide midwife but was struck off attends a number of births and frequently officiates in the absence of a doctor. She is invariably associated with one and the same medical practitioner, who notifies the births, and it is desirable that action should be taken regarding this.

I presented a report on the need of a trained midwife in portions of Hednesford and Chads Moor Wards, and the Council have appointed one who now practises in those parts. Up to the time of writing she has attended 17 women. She came to reside in the district on her appointment in October. She is included in the six trained Midwives above mentioned.

Under the Maternity and Child Welfare Act, 1918, the fees of Doctors called in by midwives are payable by the County Council and recoverable by them from the patient.

CHILD WELFARE CENTRES.

A Centre was opened at the Wesleyan Sunday Schools, Walsall Road, Cannock, in February, and sessions are held weekly on Monday afternoons from 2 to 4.30. There is a suitable general room heated by an open fire where the mothers assemble, have tea, and in which health talks are given by the Nurses. There is a suitable Doctor's room, heated by an open fire, and a weighing room which it has been found necessary to heat by an oil lamp. The premises have good lavatory and sanitary accommodation. One of the Health Visitors, Miss E. Wright, who is in charge of the Centre, reports as follows:—

“ Nineteen Mothers and Babies attended at the opening. Tea was provided free of charge on this occasion. There are now 170 members on the register drawn from Cannock, Bridgtown, and Chads-moor Wards. 134 Infants had primary examination by the Doctor, and 84 were re-examined. The Mothers have received instruction in matters pertaining to health and the care generally of the baby, and special lectures were given by Miss Saunders, Walsall, and Mrs. Ingram Clarke, Cannock, both of which seem to have been appreciated. We have an excellent pair of scales for recording the weight down to one drachm, and for the greater part of 1919 Mrs. Lewis, Cannock, one of the voluntary helpers, attended each Monday, and was responsible for most of the weighing. As great importance is attached to the weight of the baby, the mothers are advised to attend for that purpose alternate weeks or at least once a month. Virol is sold at the Centre at a rate just to defray expenses.”

Regarding the social aspect of the Centre a general tone of comradeship exists between the mothers, and is encouraged and helped by the friendliness of the voluntary workers. An outing club or-

ganised at the beginning of the sessions terminated in a very enjoyable day at Bridgnorth, and at Christmas a very successful baby show and competition was held. Pattern garments are shown and flannel and wool is for sale and offered to the mothers at reduced prices. Miss Webster, H.V., joins with me in thanking the few voluntary helpers who have so graciously given up much of their valuable time to further this interesting and good work."

Summary of attendances

On register	...	...	...	170	
Infants under one year	...	...	...	122	Attendances
Children over one year	...	...	...	48	990

The second Centre was opened on the premises of the School Clinic at Victoria Street, Hednesford, on July 4th, 1919, and weekly sessions are held on Friday afternoons. The premises are very well adapted to the purpose. There is a large assembly room, a weighing room, and a Doctor's room. The heating is by one open coal fire, and three gas fires. There is lavatory accommodation, but the sanitary accommodation is the one drawback, the only closet being the privy at the caretaker's house. Extension of sewer is required so that two water closets can be provided for use by children and adults.

Miss Ada Owen, Health Visitor, Hednesford, was in charge of this Centre. She left to take up another appointment in November. She was assisted by Miss E. H. Jones, the fourth Health Visitor who reports as follows : —

" The Hednesford Centre was opened on July 4th, 1919, weekly sessions being held since that date. There were 130 on the register up to December 31st. Total attendances 325, an average of 12½ per week. 80 were infants under one year ; 20 were children between one and two years ; 30 were children over two and under school age.

Three deaths have occurred : two being caused by congenital diseases.

The following is a list of feeding of the 80 babies under one year :—

Breast fed up to three months	...	...	...	37
Breast fed up to six months	...	...	...	13
Mixed feeding up to three months	...	...	...	12
Mixed feeding up to six months	...	...	...	4
Breast fed one month only	...	...	...	5
Artificial from birth	...	...	...	9

The number of mothers attending the Centre with first babies was 15.

All children are seen by the Doctor on their first visit, and on any subsequent visit when it is thought necessary ; all children are weighed, and the weight recorded on a card kept by the mother. Model garments (Synge) for a baby from birth to two months old are shown to the mothers, and the comfort baby derives from being so clothed explained. There is a clothing club and sewing class, which the mothers

are invited to join, they are also asked to bring any cast off garments, which can be utilised by re-making to fit any child up to school age, and one of the voluntary workers will cut out the garment, and teach the mother, if necessary, how to make it. Mothers also subscribe towards an outing in the summer.

Glaxo and Virol are sold. Tea and cake is served at a charge to defray the expense."

From these reports it will be seen that two Health Visitors attend each Centre, and are assisted by voluntary workers. The Health Visitors have all worked hard to make the Centres successful, and I wish to join in their thanks to the voluntary helpers.

I am Medical Officer to both centres, and have seen the following numbers :—

	Cannock	Hednesford
Primary consultations under one year...	97	79
Primary consultations over one year ...	42	31
Consultations after the first ...	85	97

Full records are kept on the Card Index system, an Infant Record's Card being used for babies under two years, and a pre-School record card for those over two years. It will be feasible to pass the child's history on to the Schools when school age is reached.

The health of the mother is recorded, and the most noticeable defect is bad teeth. Seventy of the mothers were found to be in need of dental treatment, and when the services of a dentist are obtained for the schools the provision of dentistry for these mothers should also be undertaken.

Every opportunity is taken to impress the vital importance of breast feeding and regular feeding of infants at proper intervals. Full details of feeding methods are gone into, and errors criticised. The necessity of a proper amount of sleep is pointed out. Many babies do not get sufficient sleep. The importance of outings in the open air, and open windows is insisted on, as also the need of separate sleeping accommodation for the baby in the form of a cot or basket.

The practice of wiping out the mouth of new born infants is condemned as mischievous and likely to harm the delicate mucous membrane. In the case of premature or weak infants the ritual of bathing immediately after birth should be abandoned. Amongst the mothers, 18 cases of abnormal pregnancies were recorded, and 16 abnormal labours. One case of phlegmasia alba dolens after labour was met with.

Cases of defect or illness are referred for treatment to their own doctors, only a few simple powders and ointment for minor troubles being supplied at the centres.

The following defects existed at the first visit :—

CONGENITAL.

Deformities 7

Birth Marks	...	...	...	...	6
Premature	...	...	...	...	4
Hernia	...	...	...	...	4
Phimosis	...	...	...	...	17
ACQUIRED DEFORMITY.					
Infantile Paralysis	...	...	...	...	1
EYE DEFECTS.					
Slight Ophthalmia	...	...	...	...	6
Conjunctivitis	...	...	...	...	5
Nystagnus	...	...	...	...	1
Squint	...	...	...	...	7
MOUTH, NOSE, AND THROAT.					
Enlarged Tonsils	...	...	...	...	1
Enlarged Thyroid	...	...	...	...	1
Enlarged Submaxiliary Gland	...	...	...	...	1
Nasal Catarrh	...	...	...	...	9
Thrush	...	...	...	...	3
SKIN.					
Pemphigus	...	...	...	...	1
Other Rashes	...	...	...	...	37
EAR.					
Mastoid Disease	...	...	...	...	2
Otorrhœa	...	...	...	...	9
Tuberculosis Lung	...	...	...	...	1
Rickets	...	...	...	...	3
Indigestion	...	...	...	...	31
Speech Delayed	...	...	...	...	2

MATERNITY HOME.

Owing to housing congestion resulting in many married women living in lodgings or in partial occupation of a house, cases arise where there is lack of convenient facilities for lying in. I made enquiries the result of which was reported to the Maternity and Child Welfare Committee, as to Maternity Homes, and later I brought to the notice of the Council that a house which had been occupied as a Hostel by war nurses, and which might prove suitable for conversion into a maternity home, was for sale. The price asked, and the fact that the accommodation was more extensive than the anticipated demand resulted in the project not being proceeded with. What is needed is a building which would accommodate a small number of lying in beds, together with some cots, for treatment, by dieting and nursing, of feeble infants and those with digestive disorders.

Opportunity for ante natal consultations for expectant mothers is afforded at the Centres, and three or four mothers have attended for this purpose. It is hoped that the midwife employed by the Council will be able to induce her patients to attend.

MATERNITY HOSPITAL.

Although the Council have made no official arrangements, cases of complications of pregnancy and parturition are received up to the limit of their capacity by the Women's Hospitals at Wolverhampton and Birmingham which receive contributions from this district. The need for increased provision of accommodation for these cases is well known and the Council should seize any opportunity which presents itself, for co-operation in the matter.

UNMARRIED MOTHERS AND ILLEGITIMATE CHILDREN.

The number of illegitimate births and deaths under one year registered in recent years has been as follows :—

	Births.	Deaths.	Rate per 1,000 births.
1915	32	—	—
1916	34	—	—
1917	40	—	—
1918	45	9	200
1919	34	4	117

There are no special arrangements for dealing with these cases.

OPHTHALMIA NEONATORUM.

Eight cases came under notice during the year. Particulars are as follows :—

Notified by	Age on onset.	Result.
Certificated Midwife	9 days	Recovery without damage.
Doctor	18 "	" " "
Not notified	2 "	" " "
Doctor	2 "	" " "
"	2 "	" " "
"	7 "	" " "
"	3 "	" " "
"	15 "	" " "

Three of these cases were very slight. In three a history of leucorrhœa was obtained, and in one the husband was definitely stated as the source of infection.

One case seen by me at Hednesford Centre was sent to Wolverhampton Eye Infirmary.

The others were treated by private doctors. The Health Visitors saw that the treatment prescribed was carried out.

PUERPERAL FEVER.

No case was notified.

DISORDERS OF PREGNANCY AND PARTURITION.

Four maternal deaths were registered as follows :—

1.—Childbirth four weeks, pneumonia, 2 days.

- 2.—Childbirth, shoulder presentations post partum hæmorrhage.
- 3.—Vomiting of pregnancy. Syncope.
- 4.—Pregnancy Cerebral Hæmorrhage.

POLIOMYELITIS.

Two cases of this disease were notified. One was a boy of 14 who was taken with headache and vomiting, accompanied by stiffness of the neck on 9th and 10th July. On 11th July it was found that his left arm was practically useless. He has received treatment prescribed by a Birmingham Specialist, and has recovered to some extent, but the arm is much wasted. He still has electrical and other treatment. The other case was a child of 17 months in whom some twitching and retraction of head was noticed, followed by weakness of the left leg. This has been treated by massage, etc., and has almost completely recovered, and is now walking.

EPIDEMIC DIARRHŒA.

Only three deaths, all of infants, under one year, were registered.

WHOOPIING COUGH.

This disease was not very prevalent. Twenty-three cases were reported by Teachers. Two deaths occurred.

MEASLES.

During the last ten years the mortality directly attributed to this disease is as follows :—

1910	.....	6	1915	.....	6
1911	.....	16	1916	.....	5
1912	.....	20	1917	.....	13
1913	.....	4	1918	.....	35
1914	.....	26	1919	.....	0

This shows an average of 13 deaths per annum, but it is necessary to point out that deaths from complications of measles, such as broncho pneumonia, are sometimes certified without the primary disease being mentioned, so that some of the mortality is concealed. The disease is a fruitful source of disablement in many who survive.

The experience of 1919 which passed without a death is exceptional in this district. While some years as 1913 and 1916 have few deaths the tendency is to suffer from increased prevalence and mortality every two or three years.

The notification of measles, which has been in force for four years, resulted in knowledge of the following numbers :—

Year	1916	1917	1918	1919
Cases	169	909	1085	90

Many of these cases were discovered by Health Visitors, and it is one of their duties to search for unnotified cases. Many notifications were redundant, being received after the cases had come to knowledge in other ways, consequently it is expected that other means of information will enable track to be kept of the disease now that the regulations enforcing notification on Medical Practitioners have been withdrawn. It is very desirable that school teachers and parents shall notify promptly. The duty to do so is laid upon Head Teachers and attendance officers by resolution of the Education Committee, and I have circularised the teachers pointing out the effect of the withdrawal of the regulations will make the information they can supply more necessary and valuable. It is therefore in periods of school holiday only that many cases are likely to miss early discovery.

As regards limitation of spread the difficulty in measles, is, of course, that while the rash does not appear till the fourth day the disease is infectious from the very commencement.

As regards reduction in mortality, however, the fact that measles deaths do not occur amongst the children of the well-to-do, shows that improved housing and nursing facilities will diminish it. I showed in last year's report that a larger proportion of the deaths occurred in two bedroom houses, than in those with three bedrooms, the figures being 111 cases in houses with two bedrooms resulting in 14 deaths, while only four deaths had occurred out of 224 cases in the larger houses.

The role of the Health Visitor is to secure the nursing of the patient in bed in a well ventilated room, to advise the calling in of a doctor in all cases under five years of age, and to insist on the need of a doctor in all severe and complicated cases. She also finds if Nursing Assistance is required, and in those parts of the district where district nurses are not yet available shows the mother how to carry out certain minor details of nursing, although she does not undertake daily nursing of cases. The Health Visitor also takes note of the history of the case, the schools attended, and reports any overcrowding or nuisance. Notices of exclusion are sent to the schools, requiring children from the infants' departments to be kept away.

Should the Health Visitor be in any doubt as to the nature of the case and the parent fails to get a doctor I visit for the purpose of diagnosis.

A leaflet giving advice is left at infected houses.

NURSING.

Children between six months and three years of age furnish the majority of measles deaths, and it is these which require nursing most of all. The tendency of the mothers to keep the children in downstairs rooms for convenience of nursing requires to be overcome. At times there is a good reason for this practice when the father is a

night worker in the mine and is in bed part of the day. The onset of complications will be largely prevented by cleansing of the nose, mouth, and throat. With reasonable care on the part of the nurse there should be little risk of her carrying the infection of measles.

On the other hand when Broncho Pneumonia supervenes other germs are at work, and the case should be strictly isolated from other cases, and especial care taken by the nurse in cleansing her hands, destroying discharges, and seeing to cleanliness of food vessels. The floor of the sick room must not be swept, but wiped over with a damp cloth and no dry dusting should be practised.

Sanitary Administration.

Staff.

The Sanitary Inspector holds the certificate of the Royal Sanitary Institute, and also Meat Inspection Certificate.

There is one qualified assistant, and a second assistant who is preparing for examination for certificate. Both these men served in the army abroad, and returned to civil life late in the autumn.

HOSPITAL ACCOMMODATION.

Notice has been given by the Joint Small Pox Committee of the Rural and Urban Councils to determine their tenancy of the premises which were used for small pox isolation, and which were unsuitable for the purpose. There has been no small pox in the district for several years. Consideration is now being given to the question of making other provision.

This is a matter of some urgency. It is necessary to have a few beds ready for use at any time with means for extension. As I have before reported combination with Brownhills Urban Council seems the best course to take, provided a concrete base was laid at their hospital and connection made with the public water supply. The Medical Officer of Health of Brownhills is favourable to this proposal.

HOSPITAL FOR GENERAL INFECTIOUS DISEASES.

The premises purchased by the Council in 1917 have been in the hands of a contractor for alteration for a very long time, and are still unfinished. It is very desirable that the work should be completed and the building made ready for occupation.

Fortunately I have been able to use the Joint Small Pox Hospital—now given up—for isolation of some cases of diphtheria during the year.

There is a Thresh disinfector on the Council Offices premises. A van is required for removal of infected clothing.

ADOPTIVE ACTS.

Public Health Acts Amendment Act 1890, Part III.

Infectious Disease Prevention Act, 1890.

The above are in force. There are no local Acts.

I have previously urged the desirability of adopting portions of the Public Health Act Amendment Act, 1907.

Some work was done in framing new bye-laws and regulations in 1914 and 1915, and those relating to dairies, etc., nuisances, cleansing of footways, tents, vans, and sheds, common lodging houses, and management of a mortuary were confirmed by the Local Government Board.

The Building Bye-laws were not finished. Probably a new series will now be issued.

Slaughter house regulations also require completion.

BACTERIOLOGICAL EXAMINATIONS.

Under the arrangements made by the County Council the following specimens were sent to Birmingham University during the year.

Examination for Tubercle Bacilli in Sputum.

	Positive.	Negative.
Tuberculosis Officer	1	17
Medical Officer of Health	--	1
Private Practitioner	—	1

Nose and Throat Swabs for Diphtheria :—

	Positive.	Negative.
Medical Officer of Health	6	27
Private Practitioners	2	6
Contacts (Medical Officer of Health) ...	2	21

Housing.

I. General Housing Conditions.

(a) Total number of houses, 6,084; working class houses, 5,610. Only one house was erected in 1919.

(b) Population, 34,000. No important change is expected, but it is anticipated that persons employed in coal mining will tend to increase. There are signs that the natural increase by excess of births over deaths will again reach the pre-war figure. This alone requires the erection of 100 houses a year.

(c) The estimated shortage of houses is 1,206 made up as follows :

Unsatisfied demand	950
To replace unfit houses	150
To replace obstructive houses ...	6
Meet deficiencies	100

To meet the demand the Council have appointed Mr. Harrison as architect, and contemplate the erection of 800 houses of permanent structure. Two types have been adopted, each having three bedrooms, living room, scullery, bath and water closet, type A having no parlour and type B having a parlour in addition.

The following sites have already been acquired by the Council.

BEECH TREE LANE.

Area nearly three acres. This is in Cannock Ward at altitude of about 420 feet above sea level. This land is a virgin site previously agricultural land. The subsoil water is near the surface, and site needed a good layer of concrete which will be laid.

Sixteen houses in pairs are in progress of erection, eight of each type.

CECIL STREET AND ARTHUR STREET.

Area about five acres. Ten houses of type A are in course of erection. This site is in Chadsmoor Ward at an altitude of 548 feet. It is contemplated to build 38 houses altogether, and tenders have been accepted.

HEATH HAYES.

Area nearly seven acres. In Heath Hayes Ward, altitude 592 feet.

OLD FALLOW ROAD.

Area $2\frac{1}{2}$ acres in Cannock Ward, altitude 568 feet.

Negotiations are proceeding for the purchase of other sites as follows:--

GREEN HEATH.

Area 12 acres in Hednesford Ward, altitude 606 feet.

HALL COURT SITE.

Area about 20 acres in Cannock Ward, altitude 440 feet.

The following arrangements have also been made for the erection of wooden houses:--

LONGFORD LANE AND WOLVERHAMPTON ROAD.

Leased area of land $1\frac{3}{4}$ acres. Six army huts are in process of conversion into 12 wooden bungalows and these will soon be completed.

The floor area is 450 sq. feet for each, with outbuildings in addition. Six of the bungalows will have two bedrooms 7ft 4ins. by 10ft and 10ft by 15ft. The living room is 10ft by 15ft. There is cross ventilation, windows being provided on each side, with the upper half hopper hung. A gas heated copper is provided, and an ordinary standard bath. One water closet is provided to each house, also a brick lined coal house.

The Council contemplate buying one hundred huts in all, which will provide 200 dwellings and negotiations are proceeding to lease several other pieces of land for their erection.

II.—Overcrowding.

It is estimated that at least 400 houses are occupied by two or more families, and that 500 houses are grossly overcrowded, entirely owing to the shortage of houses.

Many instances with full details have been reported to the Council. The Council have given instructions for lists to be kept with full particulars of the circumstances, and many applications have been received for accommodation. It is owing to the urgency of this matter that the wooden houses already mentioned are being provided.

In my opinion it will be desirable to endeavour to follow some general principles in the allocation of the new dwellings.

Some consideration should be given to cases of Tuberculosis. In instances where these are lodgers, or have healthy families lodging with them, one of the parties should have new accommodation, and in cases where tubercular patients have gone to Sanatoria from bad houses, they should if possible not be returned to their former dwellings. The question bristles with difficulties as it appears impossible that these persons of low earning capacity (if they only do as much and as heavy work as they are fit for) will be able to pay increased rent. Care will have to be taken that overcrowding does not arise in the new dwellings, and that preference is given to families who kept their former houses clean.

III.—Fitness of Houses.

- I. (a) The 5,610 working class houses are of the following types :—
 - Living room, scullery and two bedrooms, rent 3/6 to 4/-.
 - Living room, scullery, and three bedrooms, rent 4/6.
 - Parlour, living room, scullery, and two bedrooms, rent 5/- to 5/3.
 - Parlour, living room, scullery, and three bedrooms, rent 6/- to 7/-.
 - Parlour living room, scullery, and four bedrooms, rent, 8/- to 10/-.

The above weekly rents do not include any addition for increase of rates.

- (b) There are very few back to back houses in the district, and air space around houses is generally speaking good.

A large proportion of the older houses are in a condition of neglect and dis-repair, although there is no part which requires representation as an unhealthy area.

It is approximately estimated that as many as 1,400 houses are seriously defective, but capable of being dealt with by repairs and renovation with demolition of an occasional house here and there. These are scattered throughout the district, the greater proportion, however, being in Chads Moor and Hednesford Wars.

The chief defects are dampness of walls, defective ventilation of bedrooms without fireplaces, general dilapidations, bad closet and ashpit accommodation, defective drains and yard paving.

2. Action taken as regards unfit houses under :—

(a) Public Health Acts.

The Inspector reports notices under these Acts were issued regarding 337 houses.

(b) Housing Acts—no action taken.

(3) Difficulties in remedying unfitness.

One of these is the small number of tradesmen available to undertake the work and the shortage of labour they experience.

Census 1911 showed that only 374 persons were engaged on building and works of construction.

The collieries have generally absorbed the labour of the district, and with present conditions do so more than ever.

One firm of good standing is engaged in a contract for building new houses in the rural district.

Another difficulty is the impossibility in some cases of carrying out the extensive repairs necessary while the houses are crammed with tenants.

Difficulties also arise owing to mining subsidence. The Council for obvious reasons have never undertaken to carry out repairs themselves in default of the owners. To do this on an extensive scale would necessitate surveyors, clerks of works, and clerical staff, followed by legal work in contesting disputes and recovery of costs.

At the same time, if and when necessary, a few cases carried through in a determined manner would do good.

Judging from the experience of the Council in a case taken under the Public Health Acts in the local Magistrates' Court four years ago no wide interpretation of their powers under the nuisance sections is to be looked for from those gentlemen.

There is variation of opinion as to the matters included under the term "Nuisance," but many Courts have given and do give decisions, requiring defects which may be small but are such as to render a house very uncomfortable, to be remedied.

Enforcement of statutory notices by some ready and practical measures is required.

Of course the tenants have a case in common law, where a house is not kept reasonably fit, and could act in association, but the sanitary authority should be sufficiently powerful to make such a course unnecessary.

The repair of a house is often put off because the owner has little or no money. In this case Section 28 Sub-section 4, Housing and Town Planning Act, 1919, can be very useful.

"The local authority may by order declare any such expenses to be payable by monthly or annual instalments within a period not exceeding thirty years with interest, from the date of service of notice of

demand until the whole amount is paid, and any such instalments or interest or any part thereof may be recovered in a summary manner from the owner or occupier, and if recovered from the occupier, may be deducted by him from the rent of such premises."

Much trouble is at times experienced in finding out who is responsible for keeping a particular property in repair.

Section 29 comes in

" In the case of houses intended or used for occupation by the working classes, the name and address of the medical officer of health of the district and of the landlord or other person who is directly responsible for keeping the house in all respects reasonably fit for human habitation shall be inscribed in every rent book, or where a rent book is not used, shall be delivered in writing to the tenant at the commencement of the tenancy and before any rent is demanded or collected ; and if any person demands or collects any rent in contravention of the provisions of this section, he shall in respect of each offence be liable on summary conviction to a fine not exceeding forty shillings."

I trust that the building of new houses will be pushed forward. To get an appreciable relief quickly it seems the introduction of further labour is required.

(4) Unhealthy Areas—None.

(5) Bye-laws. These are referred to on page 48

FACTORIES AND WORKSHOPS.

There are 33 Factories in the district. The sanitary accommodation required is governed by Section 22 of the Public Health Act (Amendment Act, 1890).

No complaint has been received from His Majesty's Inspector during the year.

The Sanitary Inspector has not been able to visit as to sanitary accommodation during the year.

Excluding bakehouses, there are 35 Workshops and only minor defects were found in those visited.

OUTWORKERS.

There were three tailoring firms employing outworkers, but from returns sent in after application from me, there now appears to be only one outworker.

Her premises are satisfactory. No infectious disease occurred in the home of an outworker.

RAG AND FLOCK ACT.

I have been unable to discover any business in the district carrying out processes which would come under this Act.

Appendix.

Statistics for year ended 31st December, 1919.

REPORT OF HOUSING INSPECTOR.

House-to-House Inspections.

“My two Assistants were demobilised in October, 1919, and the work of house-to-house inspection was again commenced.

From July to December 31st, 288 houses were inspected. These added to 60 houses which I inspected after being relieved from the scavenging makes a total of 348 houses inspected. These have been tabulated into five classes, viz., Class A., B., B1., B11., and C.

Class A represents houses in a good state of repair with W.C. and dry ashpit or dustbin.

Class B represents houses having minor defects and W.C. dry Ashpits or D. B.

Class B1. represents houses having privie;, but in other respects reasonably fit.

Class B11. represents houses having privies or W.C.'s and general defects.

Class C represents houses having privies or W.C.'s and in a bad state of repair.

The Number of Class A	houses was	11
„ „ „ „ B	„ „	38
„ „ „ „ B1	„ „	75
„ „ „ „ B11	„ „	209
„ „ „ „ C	„ „	15

(Signed) JOHN TURTON.”

HOUSING.

1. Number of dwelling houses in respect of which complaints were made (that they are unfit for human habitation) by householders 0
2. (a) Number inspected under Section 17, H.T.P.A. 1909 348
- (b) Number considered unfit 0
- (c) Number dwelling houses the defects in which were remedied without the making of closing orders... 2

3.	Action under Section 28, Housing Act, 1919 :--						
	(a)	Number of orders for repairs issued	...	...	...	...	0
	(b)	Number of cases in which repairs carried out by local authority	...	...	...	...	0
	(c)	Number of voluntarily closed...	...	...	...	...	0
4.	(a)	Representations made	...	...	...	...	0
	(b)	Closing orders made	...	...	...	...	0
	(c)	Closing orders determined	...	...	...	...	0
5.	Demolition Orders.						
	(a)	Made	...	...	...	...	0
	(b)	Demolished	...	...	...	...	0
6.	Number demolished voluntarily		...	...	...	...	0
7.	Obstructive Buildings		...	...	...	...	0
Houses inspected under Sec. 17 in 1919 which were subject of notices under Public Health Act							
			...	...	...	...	337
	How many notices carried out		...	...	...	...	2
	How many notices carried out (partially)		...	...	...	...	0
	How many in progress		...	...	...	...	0

Staff Engaged in Housing Work.

Housing Inspector, MR. JOHN TURTON, Cert. San. Inst.

Assistant Housing Inspector, MR. JOHN DAVIS, Cert. San. Inst.

Assistant Housing Inspector, MR. PERCY NASH.

Housing Architect, MR. HARRISON.

I am, Gentlemen,

Yours faithfully,

W. M. CLENDINNEN,

Cannock,

M.B.,D.P.H.

15th March, 1920.

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